# From the Schools of Public Health



## PRACTICE-BASED TEACHING AND LEARNING: AN EXAMPLE OF ACADEMIC-COMMUNITY COLLABORATION

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Bridging the gap between the academy and public health practitioners often has the appearance of a divorce settlement, with each party speaking past the other or through a representative, but never really hearing what the other has to say. Indeed, we come from different organizational cultures with different funding pressures, reward systems, and structures for accountability. Since the 1988 Institute of Medicine (IOM) report *The Future of Public Health*,<sup>2</sup> and in subsequent reports, we have been reminded of the gaps and weaknesses on both sides of the table. A large portion of the public health workforce—working at all levels of government and in non-profit agencies—lack formal degrees in public health, with only an estimated 15% to 20% of the public health workforce currently being trained by schools of public health. On the other side of the continuum, many academics conducting research and teaching in public health have had no practice-based experience and their research may appear abstract and too controlled for the practitioner to adapt and utilize. But our shared vision for reducing ethnic and economic health disparities and improving the populations' health where we work and live keeps us coming back together.

As noted in the most recent IOM report, one means of bridging the academic-community health practice gap is through "increasing integrated learning opportunities for students in public health."<sup>3</sup> The contention of a significant number of faculty and public health practice advocates is that by increasing the capacities of our students to work in real public health settings, we not only assist the development of public health practice, but also its scholarship.<sup>1,4</sup> The challenge is doing this in a meaningful way. Helitzer and Wallerstein observe that in the curriculum of many

schools of public health, "designated 'practicum' blocks are often divorced from theory-based learning." They recommend that graduate programs incorporate practice-based classes that demonstrate the inter-relationship of practice to theory, research methods, program planning, evaluation, policy advocacy, and health and disease content areas. There are few examples in the literature of practice-based public health courses that attempt to address these multiple competencies.

This report presents a case study of the evolvement of a community-based practice and learning course in Yale University's School of Public Health (SPH). It documents changes in the course content, relations with community agencies and student learning, and ultimately, the challenges and rewards for faculty, students, agencies, and the school in engaging in public health practice courses.

#### **COURSE HISTORY AND DESCRIPTION**

Yale's SPH includes specialty areas or concentrations in biostatistics, chronic disease epidemiology, epidemiology of microbial disease, global health, health policy and administration, social and behavioral sciences, and environmental health science. In 1968, the Community Projects course was formed and subsequently made a core requirement for all the school's master's students, regardless of concentration. The structure of the course was almost entirely field-based. Groups of four to six students worked in teams, each with a field preceptor and a faculty advisor, on projects proposed by local community health agencies. Occasional workshops were provided to assist students covering topics such as data collection techniques, survey research, institutional review, and research ethics and group dynamics. Formal classroom sessions were minimized. Given the increasing demands of the specialty concentrations in recent years, the school reviewed the core requirements in 2000 and decided that this course better served the master's of public health (MPH) program as an elective.

Since 2001, the "community projects" practicum

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component has been integrated into the course Community Health Planning and Evaluation taught in the Global Health Division each spring for first-year students. While the course is now offered as an elective, all MPH students, especially those without prior community experience, are eligible to enroll. Given the smaller number of students involved, the process for selecting community projects has changed. During the summer, the faculty instructor solicits proposals for projects from local health departments, communitybased agencies, and international non-governmental organizations located within the region. The projects range from conducting community assessments and formative research and policy analysis of a public health problem to developing tools and protocols to be used by the agency in its work. In the fall semester, prospective students review the proposals and place requests for their top three choices. The instructor and teaching assistant (TA) match teams of four to five students with the proposed projects.

Freirian principles applied to the practice and theory of health promotion provide the foundation for the current course content.<sup>7,8</sup> Paulo Freire suggested that the role of an outside expert, such as an educator or public health practitioner, is to work with communities to identify their local problems and solutions and through the process become more empowered. The principles that emerge from this framework recognize multiple forms of expertise. Defining problems and solutions locally provides greater assurance that they will be culturally appropriate and attuned to local systems and politics, and ensures that the facilitator becomes a co-learner in the process. Health promotion recognizes that the health of an individual or community is shaped by the settings in which we live and prevailing social norms and policies. In order to affect changes in community health and behavior, change is required within multiple settings (e.g., schools, work sites, etc.) and at the level of the individual, interpersonal relations, community, and the policy environment. Problem-based learning through case studies assists students in analyzing public health problems, whether it is an obesity reduction program in Houston, Texas, or in Georgetown, Guyana.

The course content is broad and provides students with preliminary resources and tools for conducting public health practice, but given the semester constraints, cannot cover any one topic indepth. Class readings, discussions, and guest lectures cover public health ethics; human subjects review; social, ecological, and cultural ecology frameworks for a theoretical basis; cultural competency; definition of such terms as

"community"; data collection methods; needs assessments; planning models; evaluation designs; review of logic models and logical frameworks; and development of work plans, timelines, and budgets. Given the diverse student body and their interests in working both domestically and internationally, course instructors incorporate case studies from multiple countries and U.S. settings into the classroom discussions. Students learn that the same general tools for analysis and problem-solving apply no matter the country; ironically, we are often more conscious about understanding culture and local systems in the foreign setting than the local setting, although the lessons apply equally. Other examples of integrating domestic and international practice include introducing students to planning and evaluation frameworks commonly used in public health practice in the U.S., such as the logic model and the logical framework, widely used by international agencies. Guest speakers include a local health department director, an international consultant in HIV/AIDS strategic planning and evaluation, and a panel of New Haven community agency representatives reflecting on the community-academic divide and bridging local-global issues. In addition, at the start of the semester, students are re-introduced to the New Haven community through a bus tour of the city and its current and historical public health and medical challenges.

### The students

The students enrolled in the course reflect the diversity of the MPH student population. Most students are in their 20s (the mean age is 25) and come from all of the school divisions, including joint MD/MPH students. As reflected by their disciplinary affiliations, the students' academic interests vary, but they express a common desire to gain practical skills and to experience the application of classroom learning in their practicum work. The students' ethnicity and nationalities are quite diverse, representing many firstgeneration immigrant families from across the globe (e.g., Peru, Iran, and Liberia), more traditional Americans of mixed European, African-American, Asian, and Hispanic heritage, and international students from Africa, Asia, the Americas, and Europe. In operationalizing a practice-based learning classroom and practicum, this student population base creates a challenge because of its youth and limited professional experience. However, the students' vast collective understanding of multiple cultures and geographic settings adds a wonderful wealth of insight and sensitivity to classroom discussions and their community project activities.

# PUBLIC HEALTH AGENCIES AND COMMUNITY PROJECTS

As is evident from the course description, the "community projects" are embedded in public health agencies. Unlike some other SPH practice-based courses that require students to define a community and then conduct an assessment of needs and assets, 6 this course requires the public health agency to define its goals and objectives for student action. Depending on the agency preceptor, the methods for achieving the objectives may be very clearly prescribed or left relatively open for the students to define and determine as they become familiar with the project objectives and population. The types of agencies participating include a variety of public and non-profit public health agencies and advocacy groups such as local health departments, the American Red Cross, Planned Parenthood, and an HIV/AIDS sub-acute care facility providing support to those who would otherwise require hospitalization. In addition, some agencies like the AmeriCares Foundation, which works both domestically and internationally, have proposed projects to assist them with international programs.

Table 1 provides data on some of the recent community project titles, objectives, and outcomes. One project required students to conduct an assets mapping project of a low-income housing center in a small urban town. The local city government had threatened to bulldoze the residences. The assets mapping exercise involved interviews with community residents and local agency representatives and a report to the residents on their findings. The residents found the exercise and "assets map" a positive and empowering process, strengthening their ongoing community organizing efforts. Whether the final report can effectively be used as a policy advocacy tool to save the complex, however, remains a question.

Another project had students conduct a survey of health centers and hospitals around the state of Connecticut to determine the projected effects of statewide funding cuts on maternal and child health services. The agency used the data immediately for advocacy purposes and there are plans to continue to administer the survey on an annual basis.

Although most students and field preceptors express satisfaction with the ultimate product or activities generated by their project, the process is often rocky. Students create work plans and timelines with responsibilities for each group member at the start of the semester. As the semester progresses, individual crises or changing priorities affect the timelines and require conscious efforts at group process and com-

promise. "Real world" changes in project objectives and goals caused by external factors require some project teams to consider major shifts in design and objectives mid-semester. The academic and scientific challenges of producing quality interview guides or pre-tested survey instruments and then submitting them to the university institutional review board for approval often creates frustration with project delays. These challenges, however, provide important learning experiences and an appreciation of ethical considerations integral to both experimental and practice-based research. They also mirror the same challenges students face later in the MPH program, when they return from internships with project results they wish to use for their master's thesis.

Perhaps the greatest difficulty for students (as observed by faculty and preceptors) is developing the "art of listening," an essential skill in practice-based learning and service. Despite classroom discussions, guest speakers, and readings on different types of expertise (academic and non-academic), students occasionally find themselves in conflict with preceptors and community residents. In several cases, preceptors commented on the lack of professionalism demonstrated by a few students both verbally and non-verbally when projects did not proceed as the students wanted or hoped. Another group found themselves writing a letter of apology to a community liaison and their preceptor after taking photographs against the advice of the community representative. The course reinforces what we know about human behavior and learning: reading about a topic or hearing about it is not enough; we have to practice it and have the lived experience in order to fully appreciate the lesson. Offering a course that integrates theory, skill base, and practice components provides students a learning environment much richer than any singular classroombased course.

#### CHALLENGES AND REWARDS

The fact that schools of public health continue to be challenged to conduct more practice-based learning courses and enhance academic-community partnerships speaks to the common divide and obstacles between the academy and public health practitioners. Within the university, practice-based teaching and research are still largely regarded as "second class" science with limited value. The university provides little support or funding to faculty scholarship focused in this arena. Some faculty openly disparage courses that are practice-based and admit that they actively

Table 1. A sample of community projects, 2002 and 2003

| Agency  | Project title  | Project objectives  | Outcomes  |
|---|--|---|---|
| American<br>Red Cross   | An Assessment of<br>Disaster Relief<br>Capabilities Among<br>Health Care<br>Volunteers   | <ul> <li>Conduct study on the<br/>availability and willingness of<br/>health care professionals to<br/>volunteer during domestic and<br/>international disasters</li> </ul>   | <ul> <li>Report being used by the<br/>American Red Cross to improve<br/>volunteer effectiveness post<br/>Sept 11th</li> <li>Presented results at APHA<sup>a</sup> ('02)</li> </ul>  |
| AmeriCares<br>Foundation ('02)                                | HIV/AIDS Prevention<br>and Treatment in<br>Southern and Eastern<br>Africa: Corporate<br>Initiatives                              | <ul> <li>Develop a manual of existing<br/>HIV/AIDS initiatives (particularly<br/>donation programs) from<br/>pharmaceutical corporations,<br/>with situational and trend<br/>analysis</li> <li>Identify challenges faced by<br/>these programs and indicators<br/>of successful partnerships</li> </ul>     | <ul> <li>Presented summary of findings to AmeriCares audience</li> <li>Report serves as a reference to program planning staff at AmeriCares</li> <li>Findings highlighted donation programs that AmeriCares is able to facilitate participation in by its local partners</li> <li>Presented findings at APHA ('02)</li> </ul> |
| AmeriCares<br>Foundation ('03)                                | Key Considerations<br>for Establishing<br>Nevirapine Donation<br>Programs  | <ul> <li>Develop guidelines for a nevirapine donation program in Zimbabwe</li> <li>Draft a monitoring tool for a PMTCT<sup>b</sup> Zimbabwe program based on a literature review of best practice</li> </ul>  | <ul> <li>Guidelines developed based on<br/>samples from other companies<br/>and country situational analysis</li> <li>Developed a draft monitoring<br/>tool for a PMTCT program in<br/>Zimbabwe and forwarded it to<br/>the field for piloting</li> </ul>   |
| Bridgeport<br>Community<br>Health Center<br>('02)             | Domestic Violence<br>Against Minority<br>Teen Girls and<br>Women: The<br>Unspoken Health<br>Crisis in a Vulnerable<br>Population | <ul> <li>Implement a survey of domestic violence among clients of the health center</li> <li>Estimate prevalence of abuse among clients</li> <li>Identify correlations among risk factors and forms of abuse</li> </ul>   | <ul> <li>Findings used by agency to<br/>spark more indepth analysis of<br/>abuse prevalence and to<br/>develop abuse-specific<br/>programs</li> <li>Presented findings at APHA ('02)</li> </ul>   |
| CT Permanent<br>Commission on<br>the Status of<br>Women ('02) | Women's Healthcare<br>Rights in Connecticut  | <ul> <li>Review Connecticut General<br/>Statutes for data on women's<br/>health care rights</li> <li>Review models of similar data<br/>from other states</li> <li>Draft a document for publi-<br/>cation and general public use</li> </ul>  | <ul> <li>Presented findings to state policy makers</li> <li>Presented findings at annual dinner event of statewide advocates for women's issues</li> <li>Document serves as reference instrument for advocacy agencies and the public</li> </ul>  |
| Leeway, Inc. ('02)  | Housing is Health<br>Care  | <ul> <li>Identify best practices in<br/>supportive housing models for<br/>persons with HIV/AIDS</li> <li>Interview clients to assess their<br/>needs</li> <li>Interview housing development<br/>agencies to determine funding<br/>requirements of development,<br/>rent, and supportive services</li> </ul> | <ul> <li>Findings used by agency in<br/>planning of housing services,<br/>with specific attention to areas<br/>in which client and agency<br/>priorities had differed</li> </ul>  |

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Table 1 (continued). A sample of community projects, 2002 and 2003

| Agency   | Project title  | Project objectives   | Outcomes   |
|--|--|--|--|
| March of Dimes<br>('03)                                | Erosion of the<br>Maternal and Child<br>Healthcare<br>Infrastructure in<br>Connecticut               | <ul> <li>Document the effects of state budget cuts on the delivery of MCH<sup>c</sup> services in Connecticut</li> <li>Conduct a survey of Connecticut hospitals, community health centers, health departments, and other publicly funded MCH service providers</li> </ul>   | <ul> <li>Data from the survey are currently being used to influence state policy makers</li> <li>Will present findings at APHA ('03)</li> <li>Survey will be repeated in '04 for time series analysis</li> </ul>   |
| Planned<br>Parenthood of<br>Connecticut ('02)          | The Impact that an Increasing Number of Teen Patients is Having on Planned Parenthood of Connecticut | <ul> <li>Analyze teen-specific demographic data provided by PPC<sup>d</sup></li> <li>Develop mechanism to track characteristics (e.g., walk-in) of visits made by teens and client retention rates</li> <li>Develop qualitative instrument and assess staff and other clients' perceptions of the effect of teen presence in the clinic</li> </ul>   | <ul> <li>Findings presented to PPC serve<br/>as foundation for ongoing<br/>tracking of teen population</li> </ul>  |
| Valley Women's<br>Health Access<br>Program ('03)       | The Assets and<br>Capacities of the X<br>Apartment Complex   | <ul> <li>Develop an "assets map" with residents of a low-income housing complex through interviews and focus groups</li> <li>Document and distribute findings on the individual, organizational, and community capacities of residents and their neighborhood</li> <li>Use the report as a policy tool to heighten the awareness of local legislators and health and human service providers of the strengths/assets of the community</li> </ul> | <ul> <li>Assets map and key findings presented at a community forum</li> <li>Process opened up a dialogue among community residents on their local assets and allowed them to present these at a professional level within the policy arena</li> <li>Residents and the host agency are using the document to advocate town policy makers to maintain and support the housing residence and to develop new programs with rather than for residents</li> </ul> |
| Yale-Griffin<br>Prevention<br>Research Center<br>('03) | Documenting<br>Structural Inequalities<br>in New Haven, CT   | <ul> <li>Conduct formative research on structural inequalities (if any) in New Haven neighborhoods that affect risk for diabetes; in particular recreation areas and the proximity and availability of different types of food stores and fast food outlets</li> <li>Develop a study design protocol to assist in data collection and reporting</li> </ul>   | <ul> <li>Data were used to inform the design of a research intervention project in New Haven aimed to reduce risk for type 2 diabetes in African-Americans</li> <li>Will present findings at APHA ('03)</li> </ul>   |

<sup>&</sup>lt;sup>a</sup> American Public Health Association

<sup>&</sup>lt;sup>b</sup> Prevention of Maternal to Child Transmission

<sup>&</sup>lt;sup>c</sup> Maternal and Child Healthcare

<sup>&</sup>lt;sup>d</sup> Planned Parenthood of Connecticut

discourage students from taking them. The time required to make practice courses and projects a meaningful experience is an enormous barrier for faculty, students, and field preceptors. For each of these participants, the individual time and effort committed to the course goes largely unrecognized and unappreciated by their respective institutions.

Despite these obstacles, the rewards appear to outweigh the deficits. Table 2 summarizes the challenges and rewards associated with practice-based learning courses. Students often state that while it was one of their toughest courses in terms of personal challenges, it was also one of the most rewarding. Admittedly, the insight often comes after they have completed field internships or are graduated and working in public health policy advocacy, research, or practice. They expressed gratitude for the skills learned, the cultural and ethical issues discussed, and the practical experiences gained—noting that these experiences allowed for fewer surprises and greater insights when they began working as interns or professionally. On alumni surveys that ask about the value of courses in the curriculum, the projects have been ranked near the top by more than 80% of alumni taking the course. Also, the fact that a significant number of alumni working in state and local agencies request to be a site for community projects speaks to the value of the projects from an agency perspective.

Table 2. Challenges and rewards in practice-based learning courses by participants

| Participant | Challenges  | Rewards  |
|-------------|---|--|
| Faculty     | <ul> <li>Multiple roles: teacher, administrator, manager, group facilitator, agency liaison, conflict mediator</li> <li>Limited recognition/value of course by other faculty and "members of the academy"</li> <li>Few colleagues to "lean on" or share with</li> <li>High time burden for both responding to students' needs in and out of class and in organizing and managing projects</li> <li>Ongoing monitoring, evaluation, and adaptation of course content</li> </ul>  | <ul> <li>Improved knowledge of local community and public health needs</li> <li>Increased professional networking and associations with public health agencies across the state</li> <li>Professional networking at national conferences with like-minded academic professionals</li> <li>Collegial learning with students and preceptors as projects develop</li> <li>Development of potential practice-based research sites</li> <li>Satisfaction in student growth and learning</li> <li>Satisfaction of project results and contributions</li> </ul>   |
| Students    | <ul> <li>Working in groups and negotiating role definitions and responsibilities</li> <li>Occasional communication challenges with preceptors regarding project objectives and expectations</li> <li>Communication challenges with faculty instructor and/or TAsa</li> <li>Time commitment required of the projects</li> <li>Dual demands of course work and community project work for the class</li> <li>Leaving behind the "safety" of the classroom for the ambiguity and unpredictability of the "real world"</li> </ul> | <ul> <li>Learning to work through conflict with peers and supervisors</li> <li>Opportunities for scholarship and professional development through public presentations to policy makers and at conferences</li> <li>Experience, professionalism, and competency gained through working with a public health agency on a "real life" problem (more than a resumé builder)</li> <li>Developing skills and training that prepare them for both their internships and future professional work</li> <li>Learning more about the community in which they work</li> <li>Mentoring received from preceptors, faculty, and TAsa</li> <li>Satisfaction with the results of the projects</li> <li>Increased self-confidence about their public health practice skills</li> </ul> |

Table 2 (continued). Challenges and rewards in practice-based learning courses by participants

| Participant | Challenges   | Rewards  |
|-------------|--|--|
| Agency      | <ul> <li>Time required to create and design a manageable project</li> <li>Time required supervising and mentoring students</li> <li>Challenges communicating with students and/or faculty regarding the desired project outcomes</li> <li>Occasional lack of professionalism in student behavior</li> <li>The timing of the course (January–May) and its timeframe (14 weeks) limit the type of projects they can design</li> <li>Working with "the academy" occasionally brings with it encounters of arrogant ignorance as well as lengthy bureaucratic delays (e.g., institutional review board reviews)</li> </ul> | <ul> <li>Mentoring the professional development of public health students</li> <li>Working with often eager, enthusiastic, hardworking students (enthusiasm can be contagious)</li> <li>Agency has a project completed that serves its constituency at relatively high quality and low cost</li> <li>Increased networks with university faculty and students for potential future collaboration</li> </ul>   |
| School      | <ul> <li>Financial support for the course: faculty salary, multiple TAsa, course supplies, \$400 per project including student expenses (e.g., travel) and project expense (e.g., focus group payment, survey duplication), faculty time</li> <li>Developing incentives for other faculty or staff to engage in the course (i.e., serve as technical resources or group mentors)</li> </ul>  | <ul> <li>Increased positive visibility of the school in the community as "giving to" rather than "taking from"</li> <li>Increased competency level of students in practice-based research and problem-solving</li> <li>Students' increased skills and professional development that reflect well on the university both currently and in the future</li> <li>SPH<sup>b</sup> alumni now working in state or local public health agencies that request "community projects" for their agency</li> </ul> |

<sup>&</sup>lt;sup>a</sup> Teaching assistants

Opportunities for scholarship also exist. Many student groups have made presentations of their results to policy makers and at national conferences such as the American Public Health Association, and have published papers in professional journals. Although field preceptors sometimes bemoan the time investment required to supervise the projects, many sites submit proposals year after year. Among these individuals, it is clear that they value the work produced and appreciate the opportunity as public health professionals to mentor young, intelligent, enthusiastic students into the field of public health practice.

For all parties, there is also satisfaction in the difficult work accomplished and the potential for the results to influence community members, policy makers, and researchers. Finally, practice-based learning courses such as this also provide invaluable positive benefits to the school and its image in the community. The agencies and community members who participate in the projects with students perceive the work accomplished by and with the students as the university "giving back" to the community rather than taking from it.

This article presents one example of a practice-based learning and service course in a school of public health and the challenges and rewards it produces. The course builds on public health values that seek to reduce health disparities and improve the population's health by increasing the capacity of communities, public health agencies, and universities to address these problems in partnership. The collaborators rediscover each time that partnership is difficult, that there are no "magic bullets," and that long-term change requires policy and system changes sensitive to the needs and strengths of the communities they are intended to support. To coin Michelle Fine's metaphor, we are "working the hyphens" of academic-community partnerships—living with ambiguity, conflict, discovery, and

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frustration, and emerging with new visions and a greater understanding of the collective challenges before us.

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